

Public Swimming Pools

February 1, 2005

Implementation

Comm 2 - Fees

- “and associated slides”
- Reinspection fee of \$150.00
- Table 2.68-1
 - Pool slide, drop slide or water slide functional review = \$270, \$120, \$120
 - Structural review = \$300, \$120, \$120
 - Same for agents
 - Included with pool review
- Water Attractions include IPA (Splash Pads)

90.03 (1) Accessible



90.03 (5) Children's slide



Deck 90.03 (6)

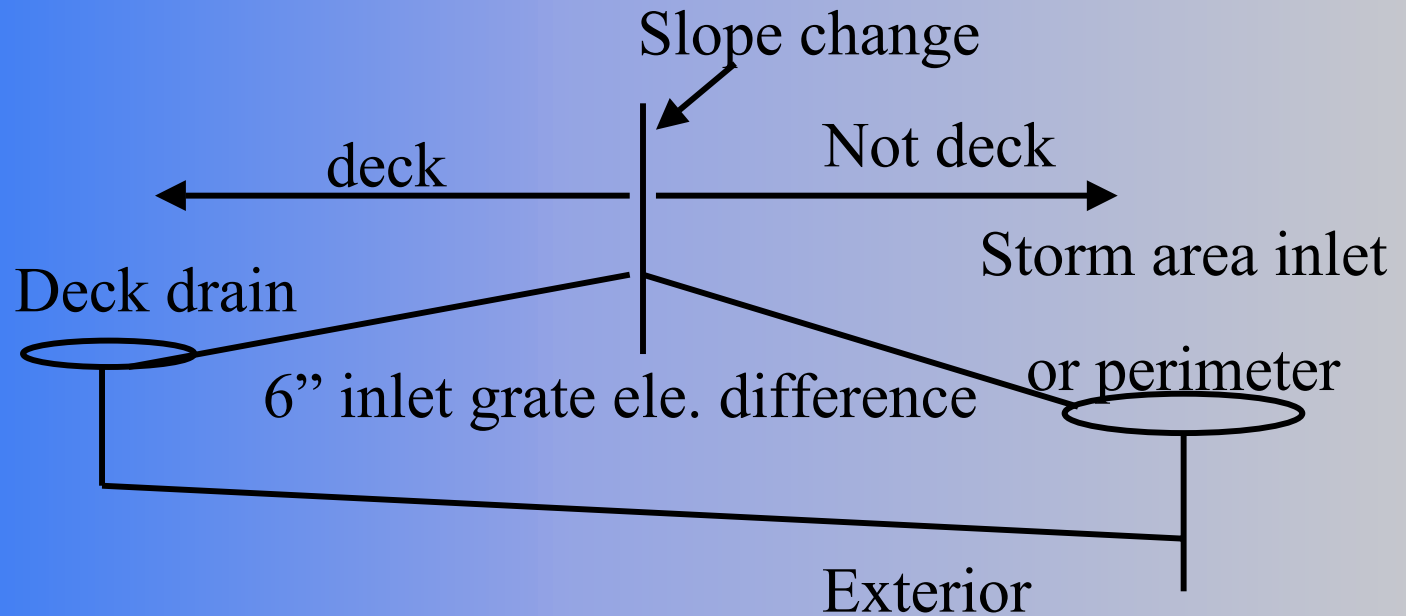


Interior

Decks drain to deck drains.

Floors do not drain to deck drains.

Deck 90.03 (6)



Deck is the area that drains from the edge of the pool to deck drains and the perimeter or the required code-minimum width, whichever is designed as deck.

Deck

- The use and management of the floor defines whether or not it's deck.
- The code-minimum deck width must be treated as deck.

90.03 (9) Drop Slide



90.03 (11) Interactive Play Attraction



90.03 (14) Open Swim



90.03 (17) Play feature



90.03 (18) (f) Therapy pool



90.03 (18) (g) Wading pool

90.03 (19) Pool Slide



90.03 (23) Reconstructed or altered pool



90.03 (25) Runout slide



90.03 (29) Splash zone



Swimming pool complex



90.03 (31) Swimout



90.03 (32) Terminus section



90.03 (36) Transfer System



90.03 (38) (a) Activity Pool



NO



YES

90.03 (38) (d) Vanishing Edge Pool



90.03 (38) (e) Vortex pool



Safety & Buildings Division

90.03 (39)
Water attraction
complex



90.04 Plan review and approval

- What's required for a plan?
 - Name & address of owner
 - Legal description or address of pool
 - Location of wells, utilities
 - Topography of site
 - Natural water features
 - Specifications
 - Plot plan
 - Plan view
 - Elevation view
 - Flow diagram
 - Bathhouse & restrooms
 - Design info for surface area and volume of pools

90.04 (6) (c) Inspections

Responsible supervisor
or
Contractor

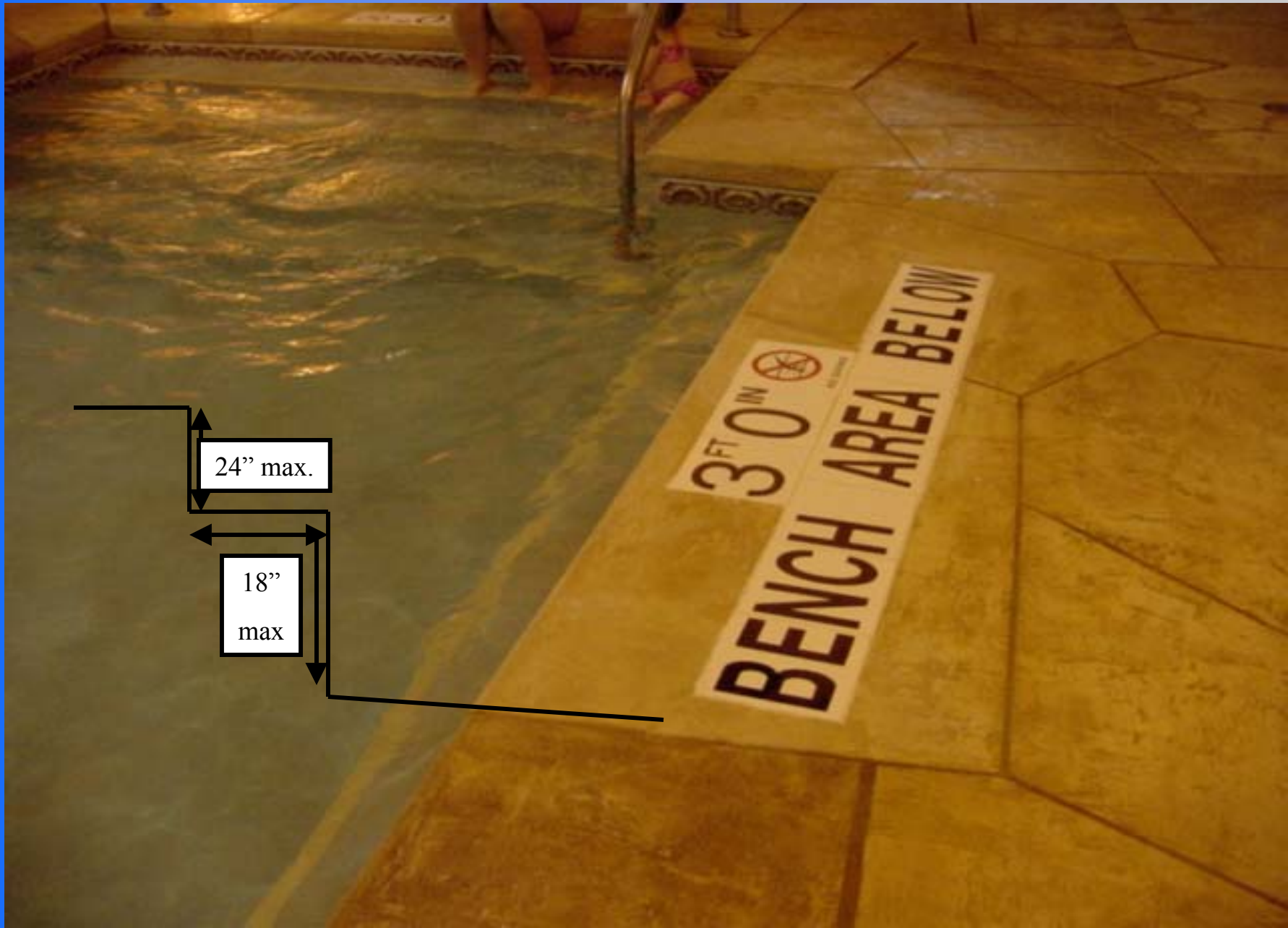


90.07 (3) Patron load posted

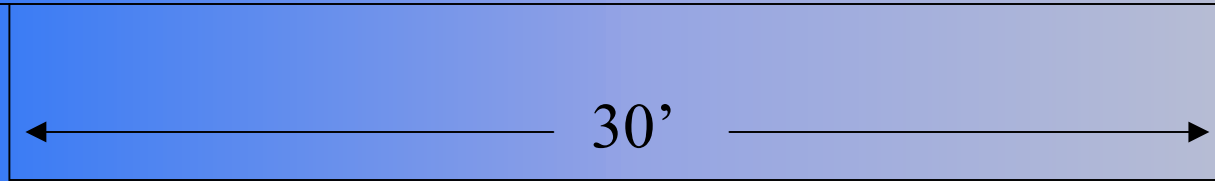
SPA CAPACITY

PERSONS

90.08 (8) (b) 2.

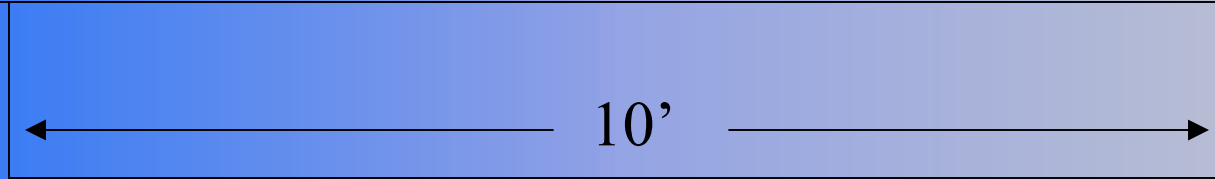


Safety & Buildings Division

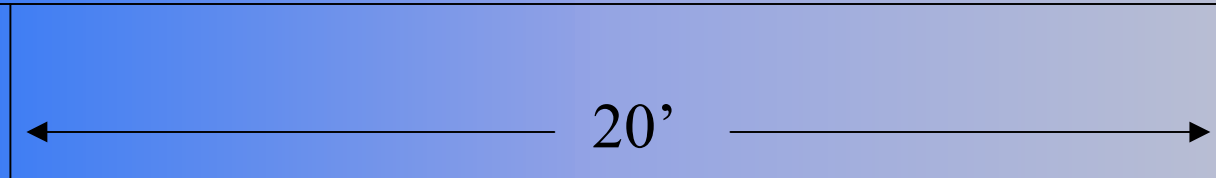


Bench below

Bench below

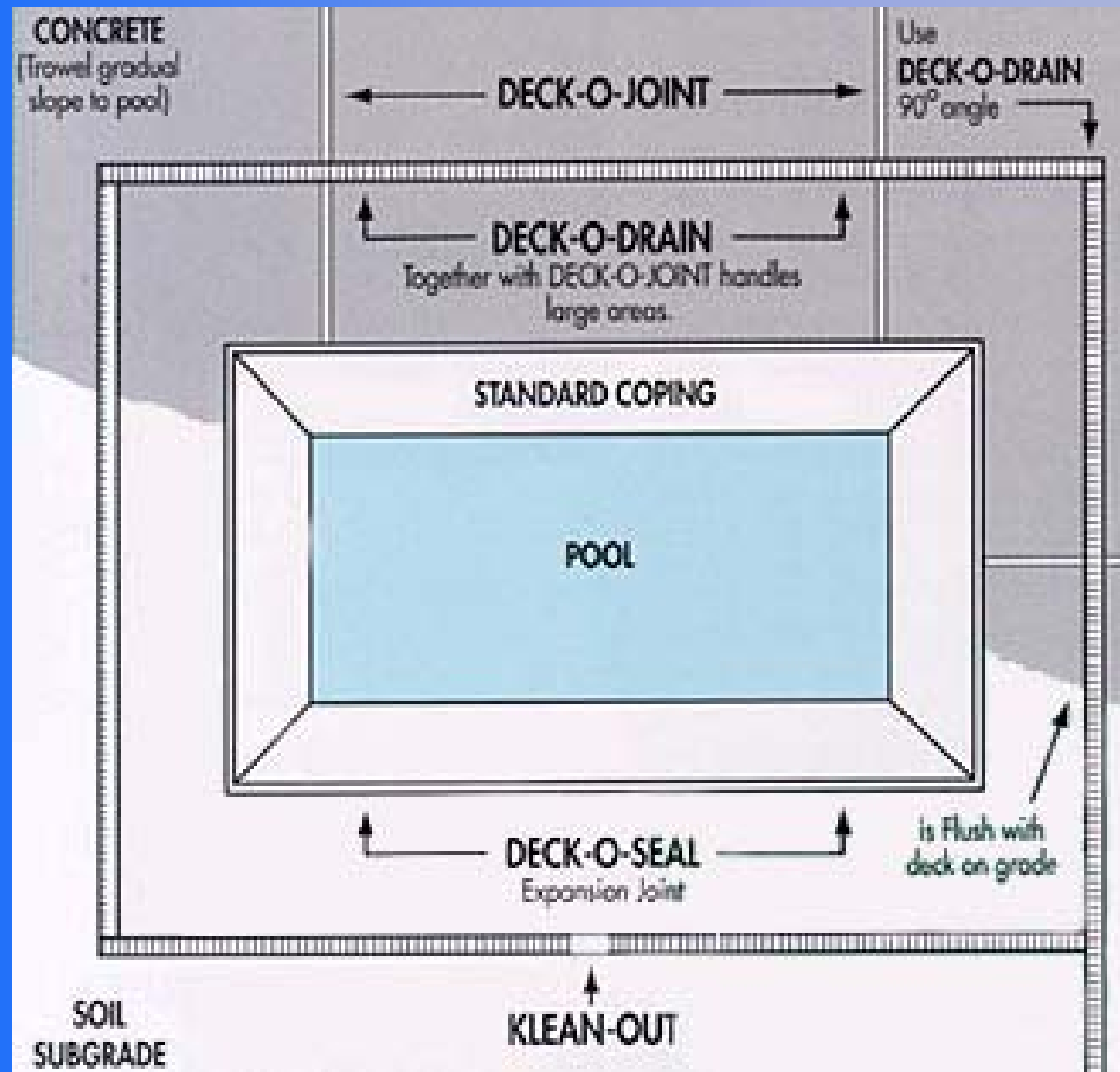


Bench below



Bench below

90.09 (2) (b) Deck drain discharge



- Storm sewer via air gap
- Storm sewer w/equivalent protection
- Ground surface

90.09 (2) (b) What's equivalent?

- Deck drains & storm inlets tying together & discharging to grade or municipal storm
 - Entire system sized as per 82.36
 - **Each** deck drain is protected by storm area drain inlet 6" below deck
 - Entire system installed by licensed plumbers
- Deck drains, discharging via air break to storm area inlet
 - Storm area drain inlet 6" below deck

90.11 (1) Separate surge tank (unless otherwise approved)



90.11 (1) When a room is provided . . .



90.11 (1) Covered by ANSI/NSF 50 shall conform to ANSI/NSF 50 or equivalent standard

HAYWARD POOL PRODUCTS, INC.

Sand Filters

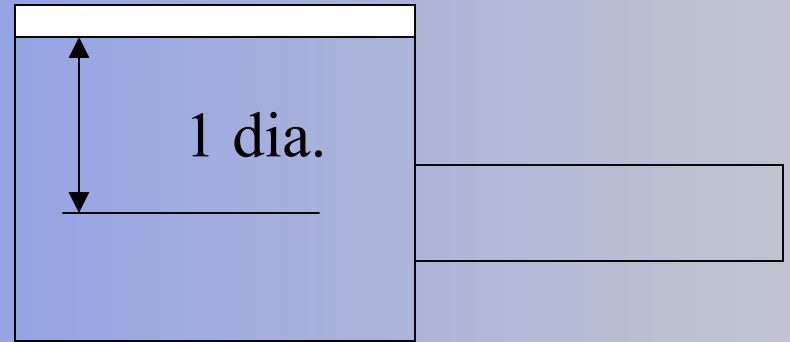
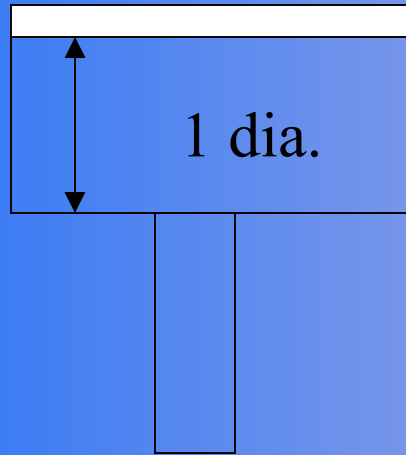
S160T	High Rate Sand	20	1.4	Pool
S180T	High Rate Sand	20	1.7	Pool
S200	High Rate Sand	20	2.2	Pool
S210S	High Rate Sand	20	2.2	Pool
S210T	High Rate Sand	20	2.2	Pool
S220S	High Rate Sand	20	2.6	Pool
S220T	High Rate Sand	20	2.6	Pool
S2300TPL	High Rate Sand	20	2.6	Pool
S240	High Rate Sand	20	3.1	Pool
S244S	High Rate Sand	20	3.1	Pool
S244SAQ	High Rate Sand	20	3.1	Pool

90.11 (1) NOTE

Note: An installation where the backwash is discharged through a manifold system is not considered to be the interconnection of recirculation systems.

90.11 (6)(b) 2.a.

Main drain piping connection



90.11 Therapy/Exercise Turnover Time



Pool dim. = 6' X 3' X 8'

144 cu ft/ person

1077 gal/person

2 hr turnover time

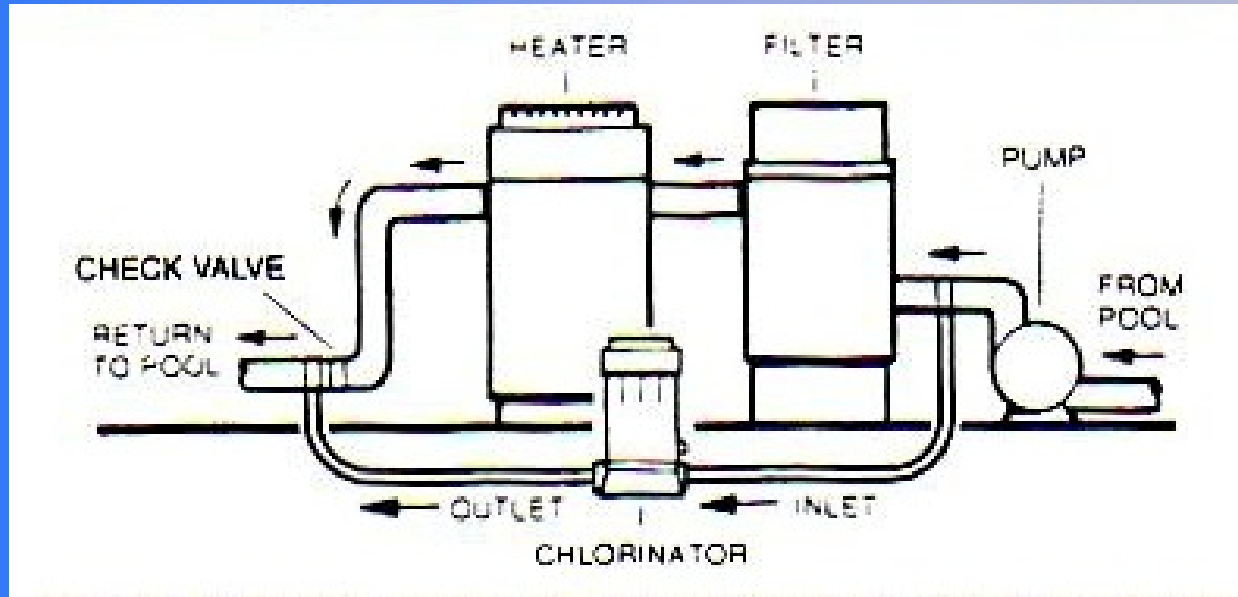
90.11 (9)(d) 8. Discharge



Per 82.38-1

Air gap to sewer or grade

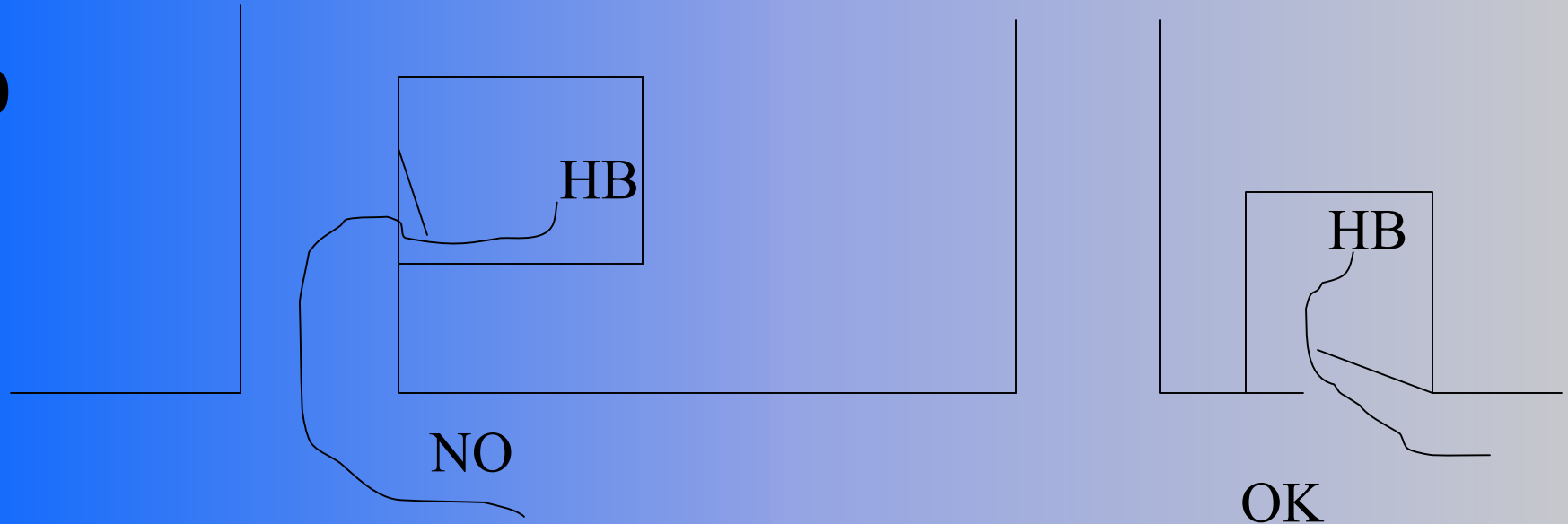
90.12 (1) (d) Disinfectant Addition Point



90.13 (1) Pool pipe sizing

- **Pressure piping: 10 ft/sec maximum**
 - **Copper, 8 ft/sec maximum**
- **Suction piping: 6 ft/sec maximum**
- **Grating: 1.5 ft/sec maximum**
- **Gutter drains: 125 % of recirc water**

90.13 (6) Hose bibbs



Pool area

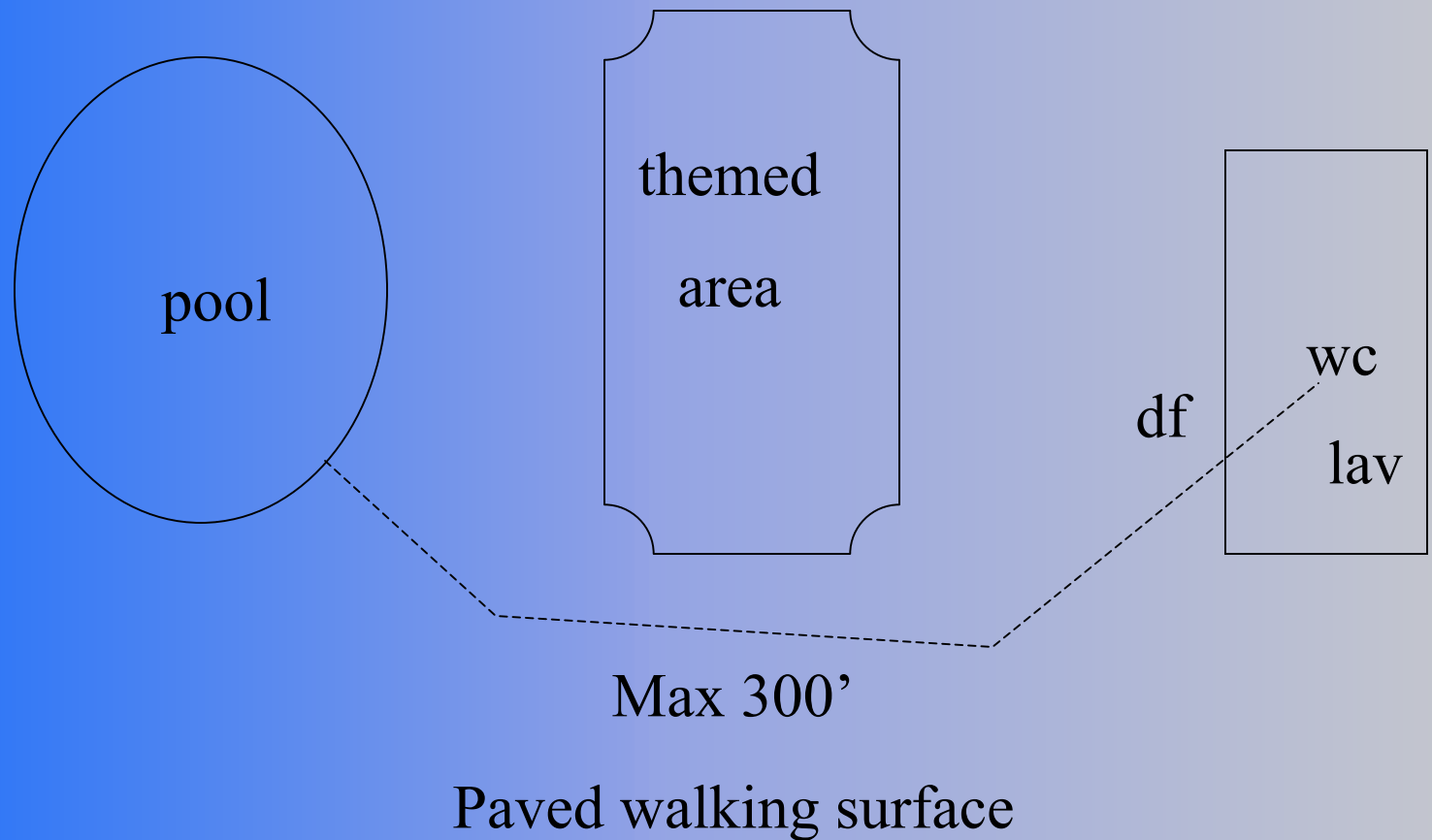
90.14 Heaters & thermometer

(1) Heaters installed per Comm 84.20 (5) (p) and 84.10 (5)
(add the requirements here so they don't have to buy the code)

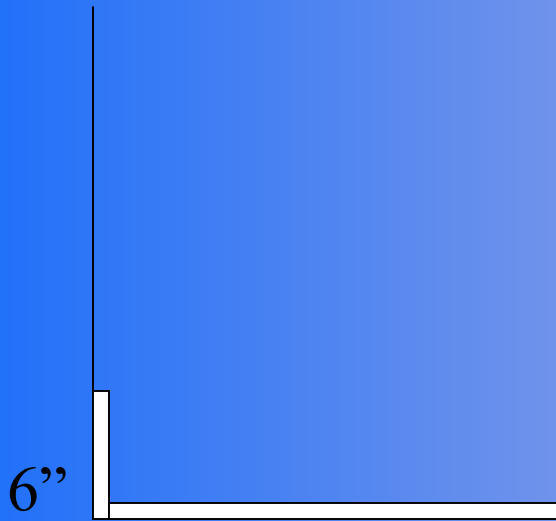
(2) Thermometer in recirculation piping
and accessible for reading

(3) Heaters installed and tested per Comm 64, 65 and 16
(find these requirements too)

90.16 (1) Accessibility to toilet & handwash facilities



90.16 (2) (b) Floors & Drains



- smooth
- hard
- non-absorbent
- slip-resistant
- drains, 1/2''
max openings

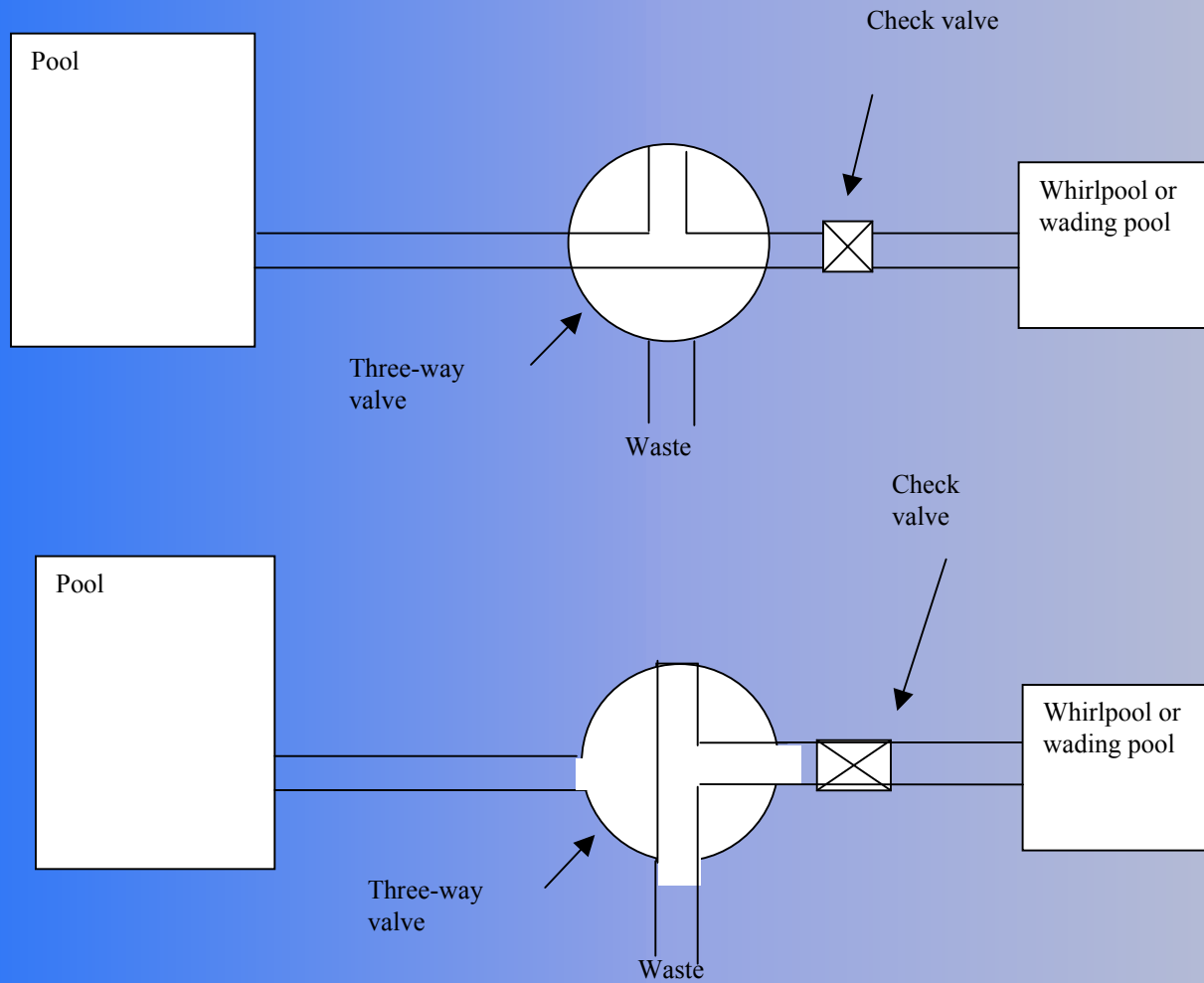
Table 90.16 Required San. Facilities



90.16 (2) (k) Diaper changing station



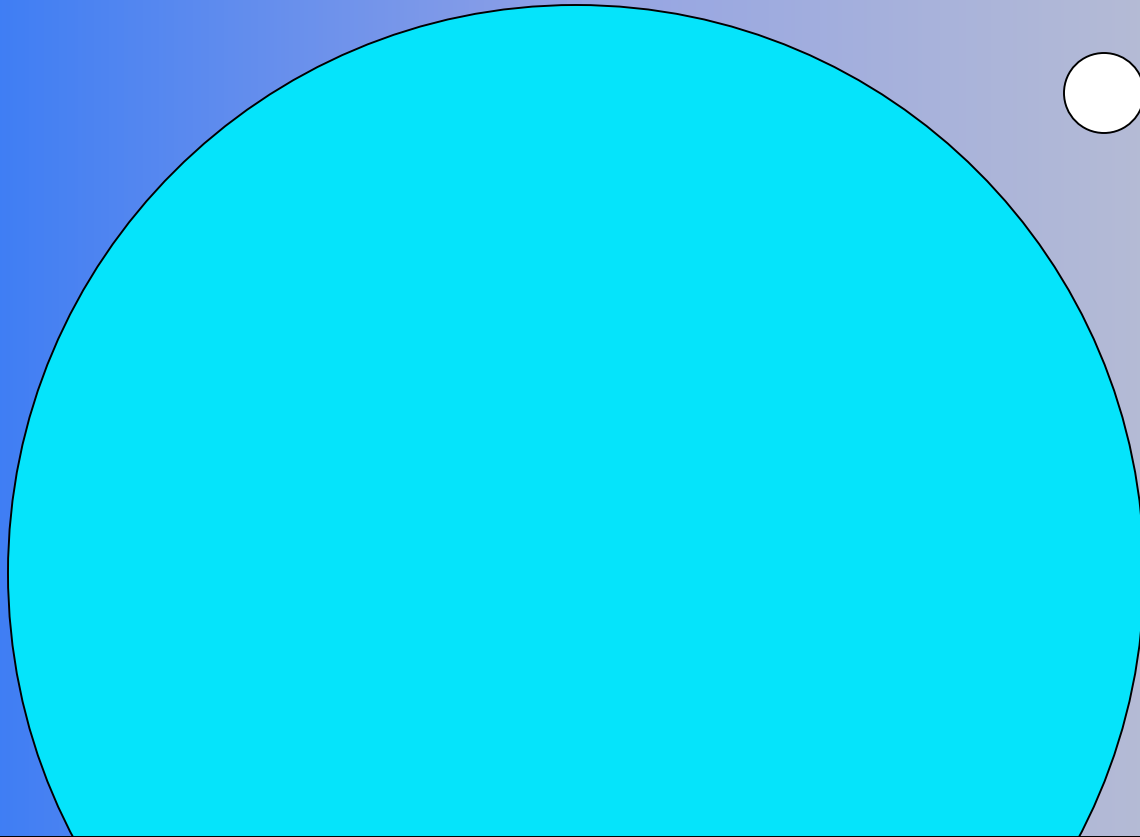
90.18 (2) (e) Wading & whirlpool fill



90.18 (6)(b) Wading pool deck drainage

$\leq 20''$ drain to pool

$> 20''$ drain to deck drain



90.20 Water Attractions



Basic engineering principles to protect health & safety

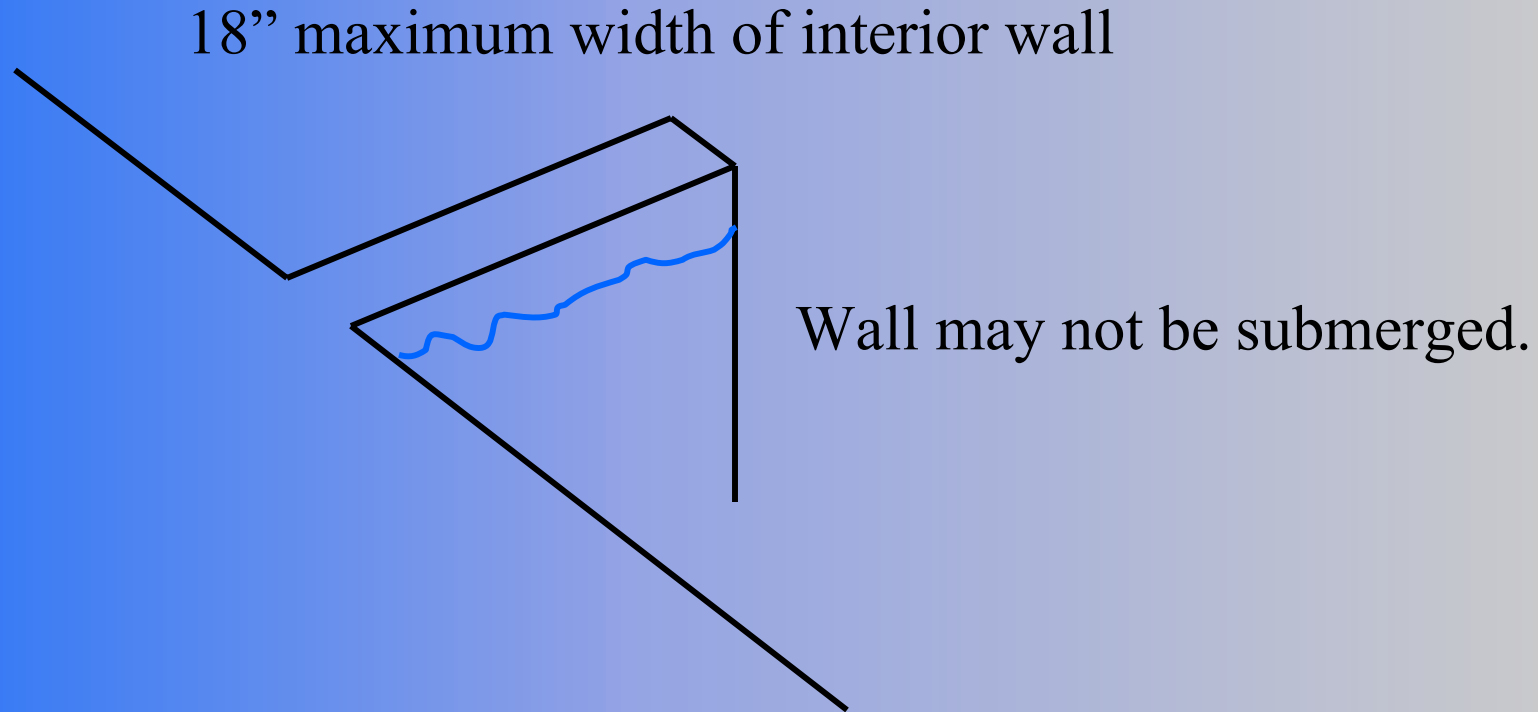
90.20 (2) (f) Light in color



90.20 (2) (h) Barriers to Access

- Required around water attraction or water attraction complex
- No hand or footholds in barrier
- 5 feet high
- 3 feet from from any rise in elevation
- Self closing and latching gate
- Latch 45" above the ground
- Closure mechanism ≥ 3 " below top
- No openings greater than 4 inches
- Alternate where approved

90.20 (3) Obstructions



90.20-1 Construction Tolerances

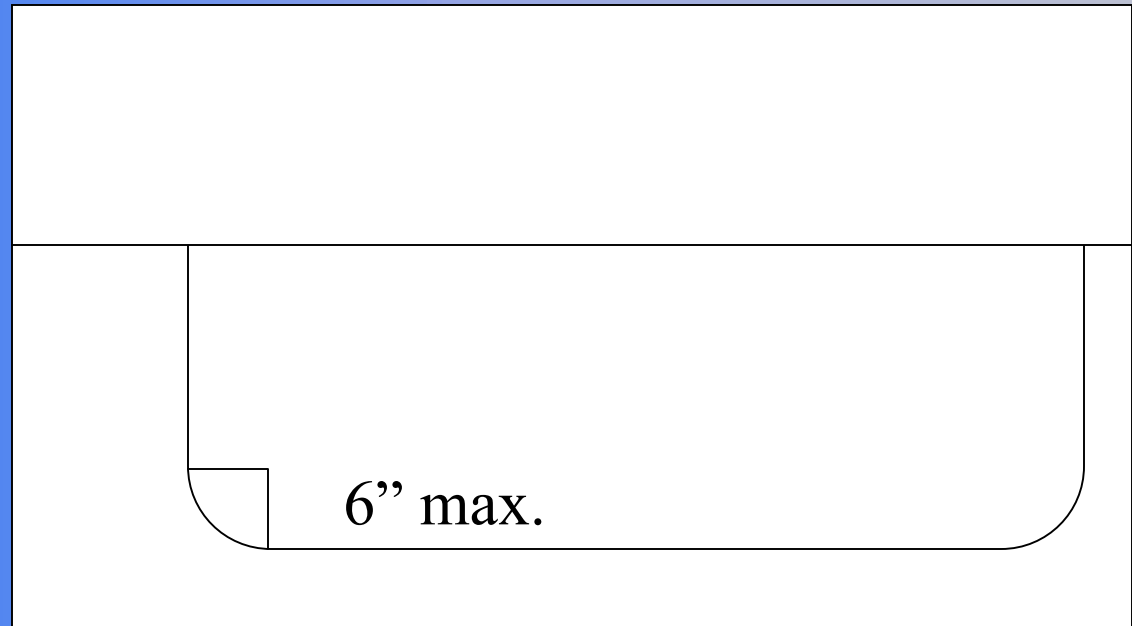
- Length, overall 3"
- Width, overall 3"
- Depth, deep area 3"
- Depth, shallow 2"
- Floor nozzle flushness 1/8"
- Stair treads and risers 1/2"
- Waterline, w/ skimmers 1/4"
- Waterline, w/out skimmers 1/8"
- Walls 3 degrees
- Other dimensions 2"

90.20 (3) (c) Slopes & Radii

$< 5'$ depth 1:12

$\geq 5'$ depth 1:3

Radius = 6" maximum for $< 5'$ depth



90.20 (3) (e) Depth markers

90.20 (3) (f) Design requirements

90.20 (4) Turnover times

90.20 (5) Deck surfaces & equipment

Stairs

Drainage

Concrete deck requirements

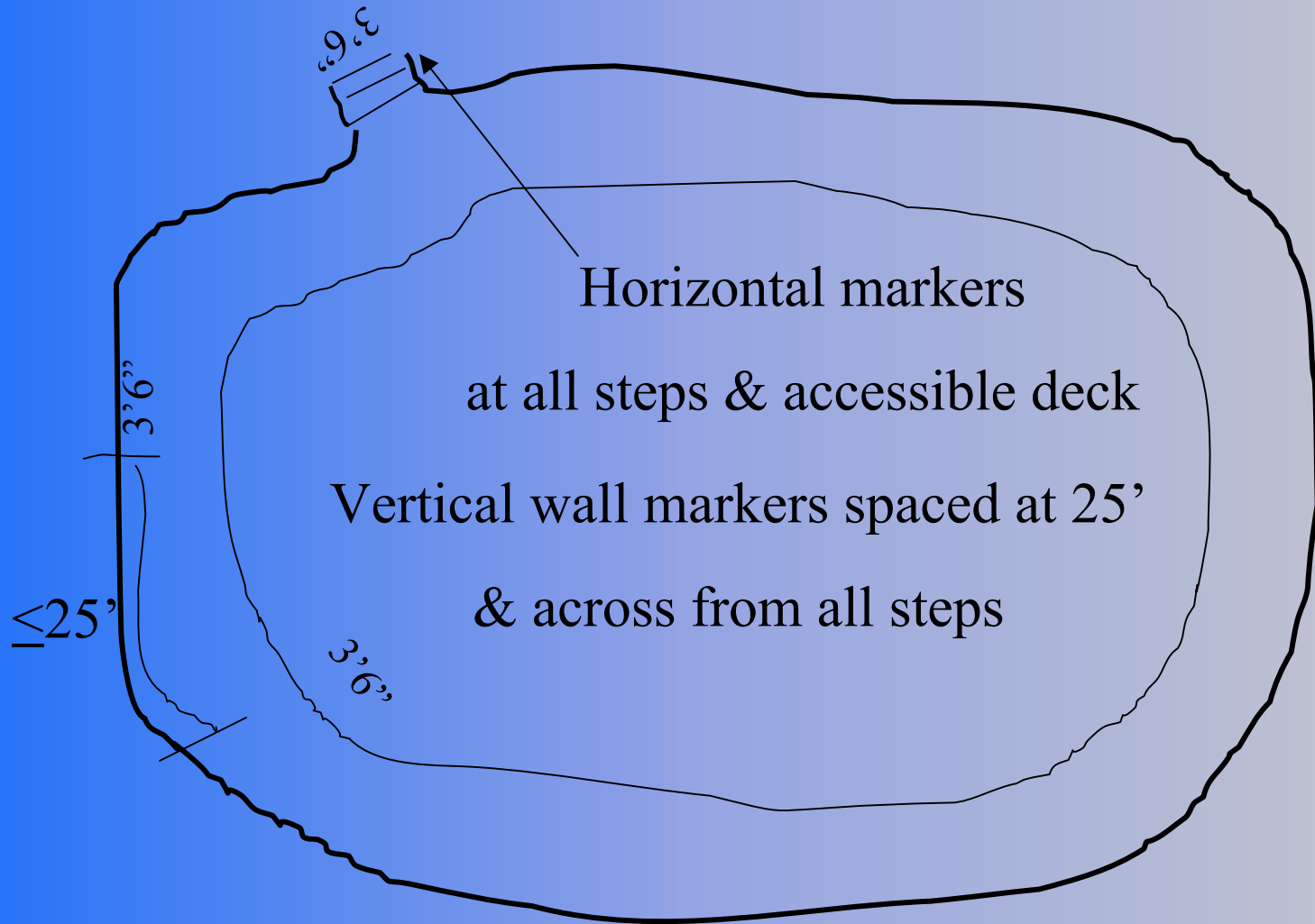
Test before pouring

Accessible valves

Hose bibbs

Water powered dedicated HB

90.20 (3) (e) 5. River depth markers



90.20 (6) Circulation systems

- Separate for each basin
- < 10% of circ. Rate may serve slides or spray features
- Circulation piping - NSF 50 or Comm 84
- Pipe labels or tags or color coding
- Testing
 - 150% of working pressure for 1 hr or 25 psig
 - Maintain pressure through deck pour
 - Velocity identical to pool requirements

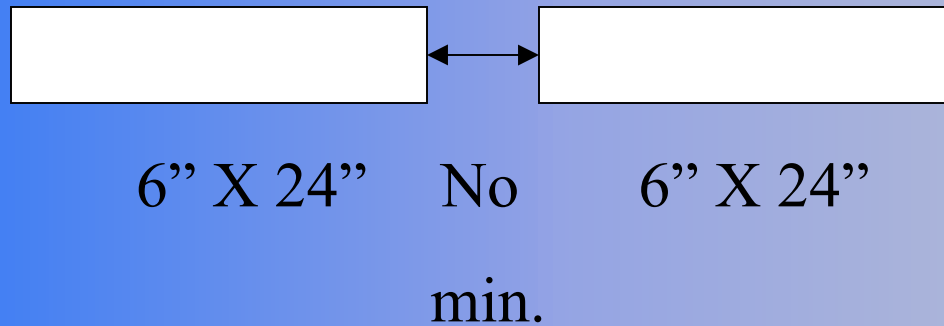
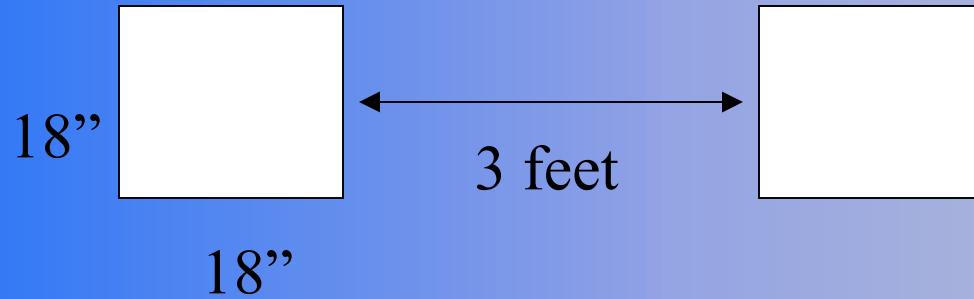
90.20 (6) Circulation Systems

- Gauges
- Pumps & Motors

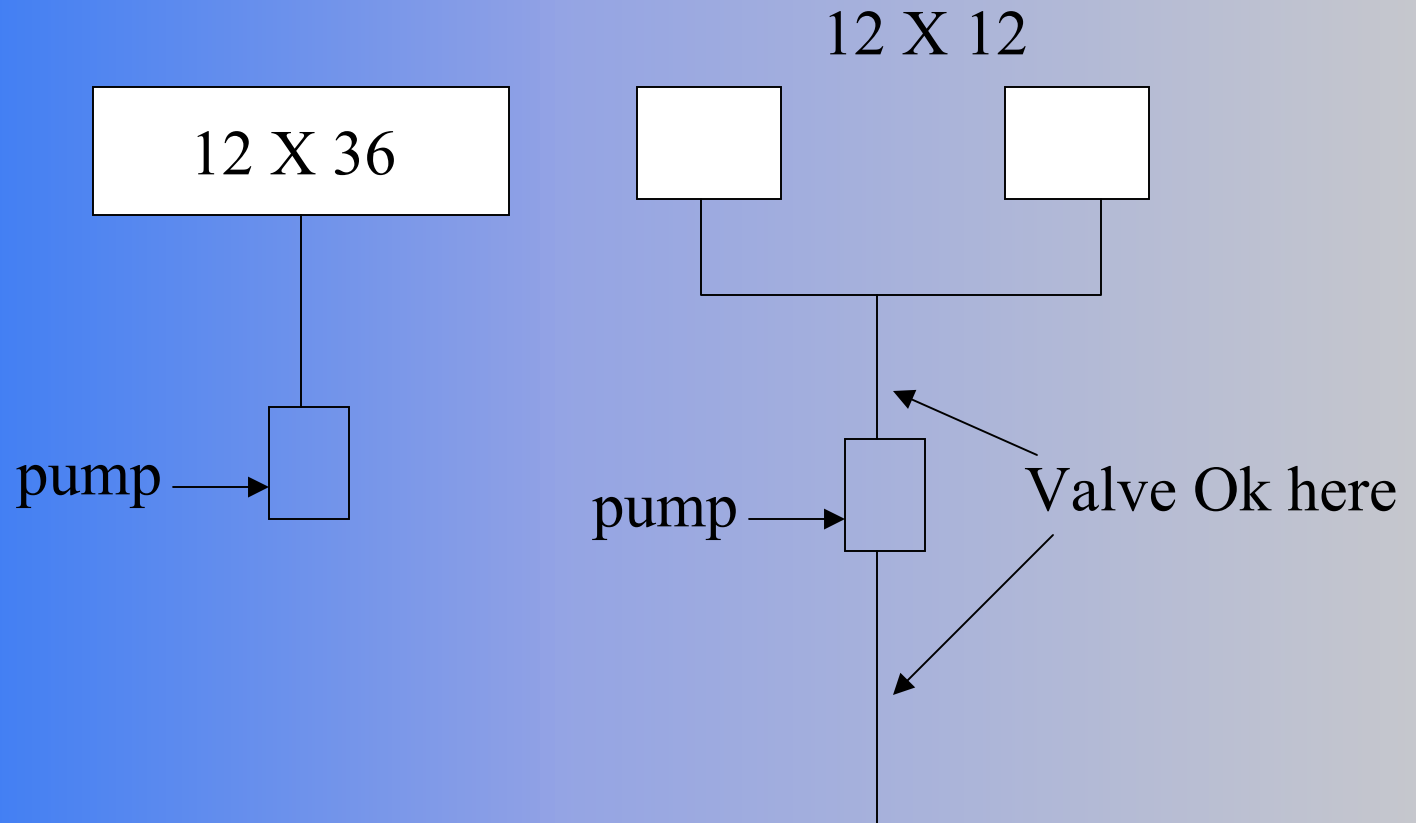
90.20 (8) Return inlets and outlets

- 100% circulated flow through main drain and skimmers
- Maximum design flow, except for reverse flow pools 20 - 25% through main drains
- Inlets, min. 2/ water attraction
- Basins = 1/300 sq ft
- Rivers = 1/1,000 linear ft
- Flush with bottom
- 1/10' of stairwell width
- Suction outlets

90.20 (8) (h) Outlets

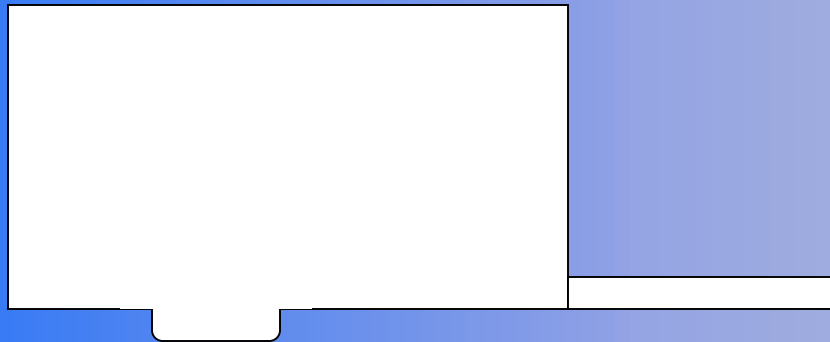


90.20 (8) (h) Suction Piping



90.20 (8) (9) Other circ.system req.

- Maximum 1/2" openings on grates
- Maximum 4" openings on caissons
- No vacuum fittings permitted
- Drain provisions
 - 6" sump or drain



90.20 (9) Perimeter Overflow

Skimmers

Covers securely seated

1 skimmer/ 500 sq ft (forget stairs)

3 gpm/1" of weir width

Table 90.20-4

Surge tank capacity

90.20 (12) Water Supply

Per 82.70-1

6" air gap or 1.5 X pipe ID

Under diving board or by ladder

Zero depth entry w/o surge tank - auto fill

Label piping

Water attractions need automatic sanitizers & pH control

Chemical feed pump wired to water pump

90.20 (14) Safety Equipment

Rope & float lines

breakpoint

slides & pad walks

caisson wall

Emergency shutoff

Wave pool

Vortex pool

Rivers

90.20 (17) Patron load - 15 sq ft/patron

90.20 (18) Entries & Exits

Table 90.20-5

Zero depth entry max 1:12

Slip resistant to 18" depth

Stairs

leading edge color

handrails - 1 1/4" to 1 15/16"

30"-34"

on edge or center with 3"

Ladders

7" - 12" steps

3" - 6" from wall

90.20 (18) Entries & Exits

Swimouts

20" below water line to shelf
Edge of contrasting color

Benches - same as pools

90.205 Play features

36" minimum depth

with 6' padded

10' min. Between padwalks

10' min. Between floating features

Interactive Play Attractions

- Slip resistant

- Floor 1:12

- Floors slope away

- 1/8"/ft min. Floor slope

- 12' from splash zone to >2'

Balance tank volume = 4 X flow rate of all pumps

- Above ground piping must drain

- Gravity drains - 125% of discharge

- Suction from bottom of surge tank

- No fence required

- No plants permitted in splash zone

90.30 Slides

Runout slides X 2 = balance tank

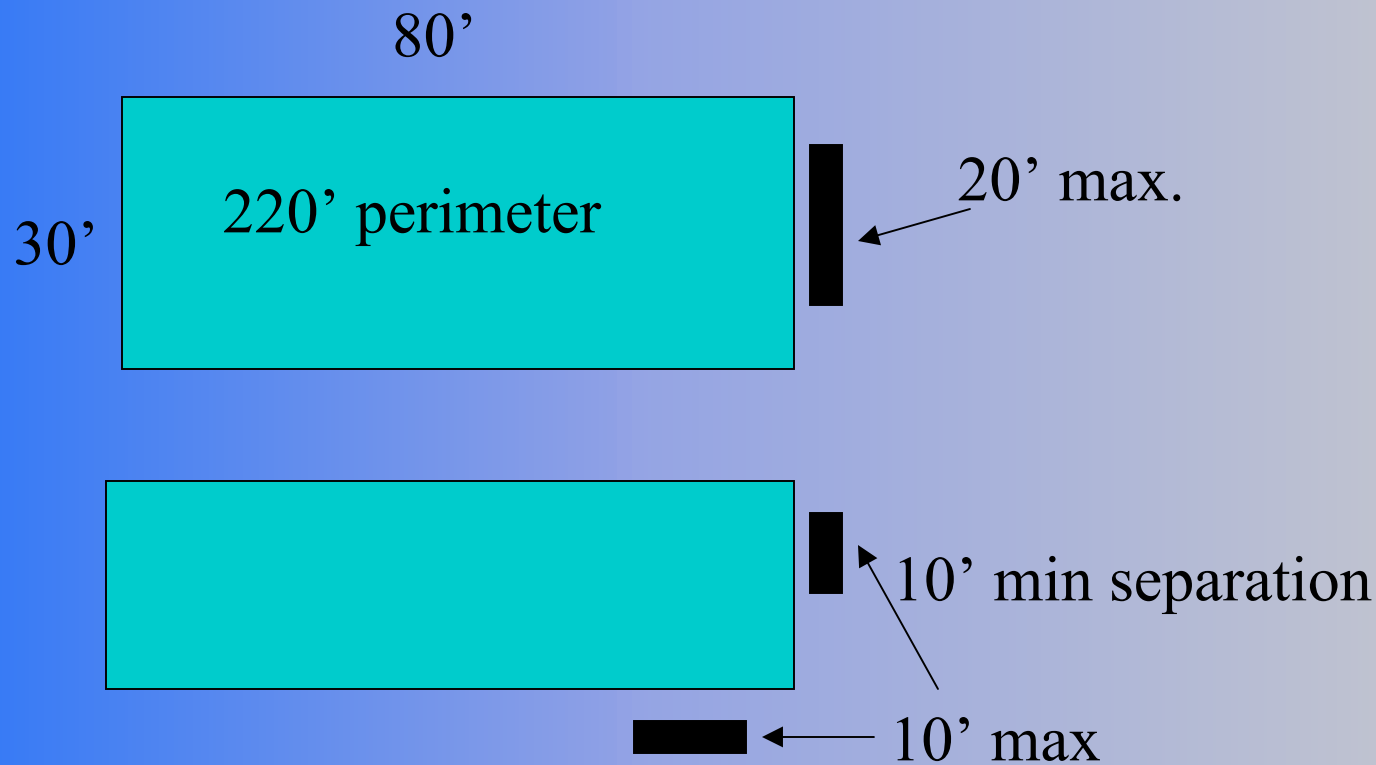
Stairs, platforms, decks - Comm

62 for guards, handrails, headroom

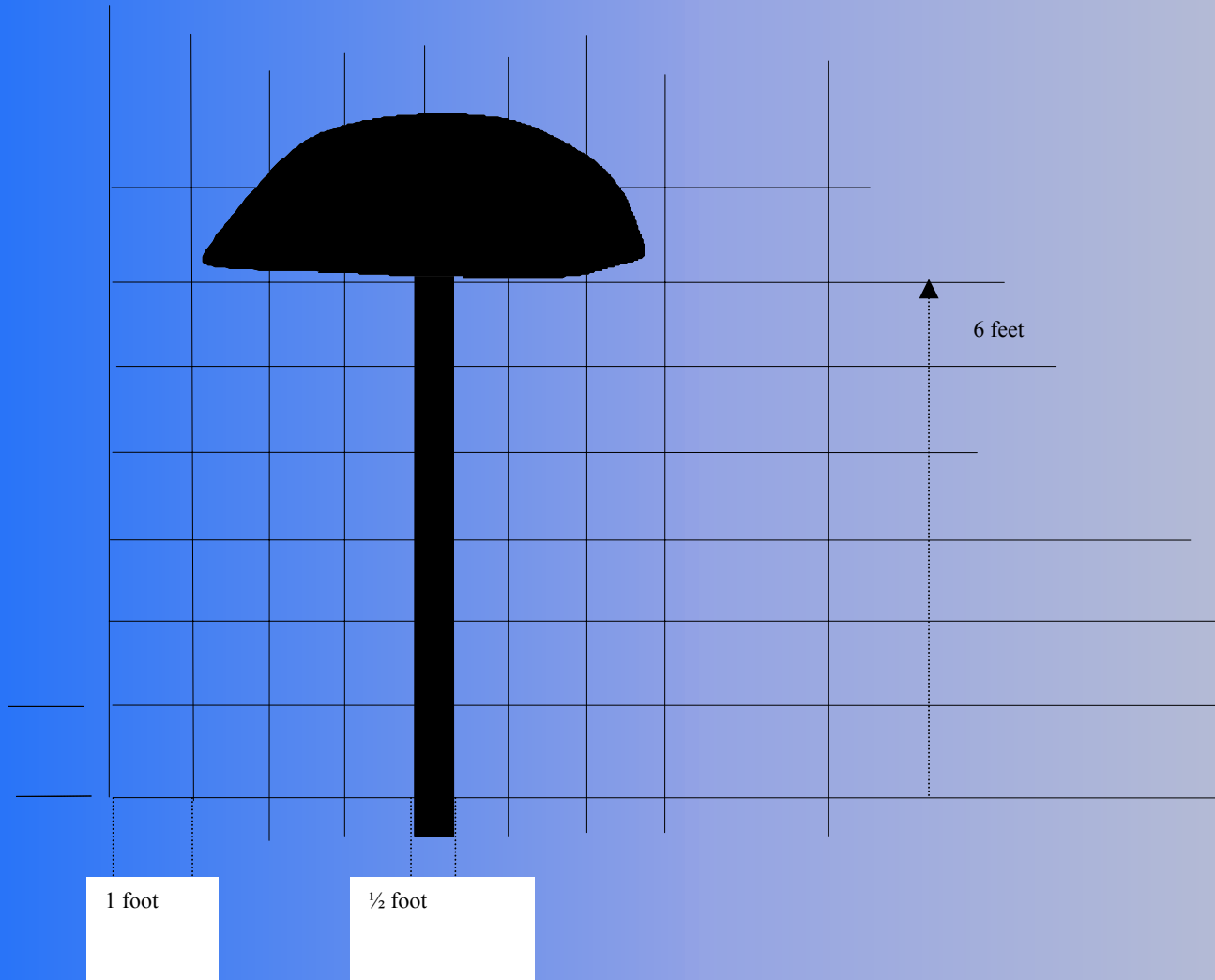
90.30 (3) Installation

Deck obstructions

Max without lifeguard plan



90.30 - Pool obstructions



90.30 Basin obstructions

